

RINGFEDER

Automatic Trailer Coupling

suitable for centre axle trailers equipped with 40 mm drawbar eye

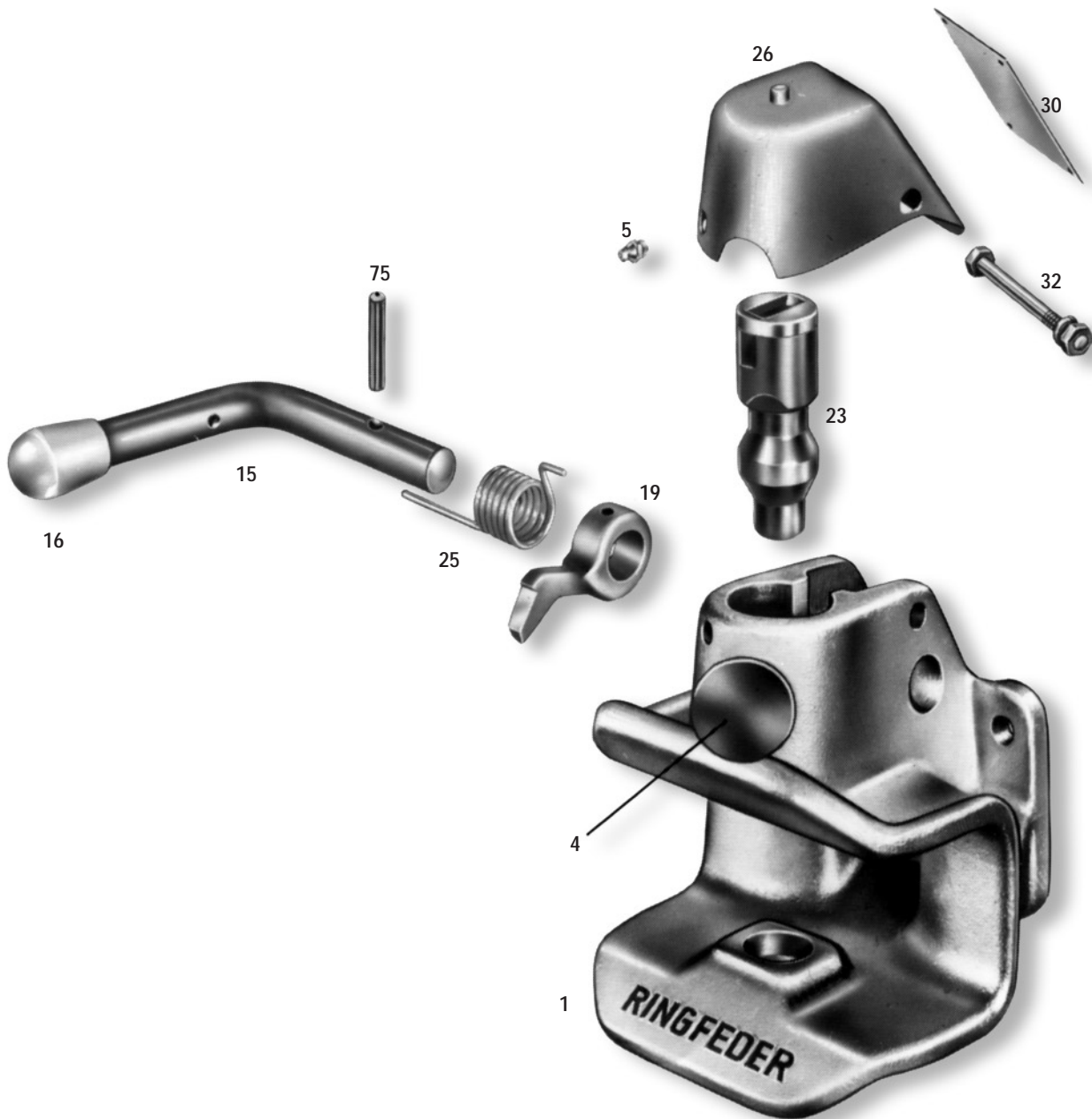
Type 601 U 115



Automatic Trailer Coupling

Type 601 U 115

Suitable for 40 mm drawbar eyes to DIN 74054



Parts list for spare parts and maintenance

Type 601			
Item	Order No.	Description	Qty.
1		Coupling body incl. item 4	1
4	5 991 293	Safety device, complete	1
5		Tapered grease nipple AM 8 x 1	1
15	5 991 382	Hand lever incl. item 16	1
16		Knob	1
19	6 998 160	Locking lever incl. item 75	1
23	7 995 660	Coupling bolt	1
25	10 995 230	Locking spring	1
26	6 998 445	End cap, complete	1
30		Nameplate with fastening material	1
32		Hexagonal screw M 8 x 65 with nut	1
75	12 991 479	Spiral safety pin	1

Installation:

Fit trailer coupling to the vehicle using 4 hexagonal screws M 10, quality 8.8 (tightening torque 49 Nm).

Operation:

Pull out and hold button-type safety device (4). Press hand lever (15) upwards until the coupling bolt locks into place.

Introduce drawbar eye. While the coupling bolt (23) is being lifted the catch is released and the coupling bolt (23) slides into position. Simultaneously the safety device (4) is released and locks the coupling bolt automatically.

Check that the button-type safety device (4) is fully engaged and thus, properly secured.

Maintenance:

The coupling mechanism is protected from dust and generously lubricated. Coupling bolt and drawbar eye are subject to less wear when they are kept clean and always well lubricated.

Important Instruction:

When fitting (or replacing) the trailer coupling please attend to the relevant statutory regulations and particular information from the vehicle manufacturers.

EEC Type Approval:

The fitting of the trailer coupling is to be viewed in accordance with the regulations defined in supplement I, no. 5.10 following the requirements laid down in supplement VII of the EU-directive 94/20 EC.

Technical Data:

D-value for towing vehicle and semi-trailer

$$D \text{ (kN)} = g \cdot \frac{T \cdot R}{T + R}$$

The calculated D-value may be **less or equal to** the D-value of the coupling.

T: max. mass in tonnes of the towing vehicle

R: max. mass in tonnes of the semi-trailer

g: acceleration due to gravity 9,81 m/s²

Dc-value for the towing vehicle and centre axle trailer

(only applicable in connection with the V-value)

$$Dc \text{ (kN)} = g \cdot \frac{T \cdot C}{T + C}$$

The calculated Dc-value may be **less or equal to** the Dc-value of the coupling.

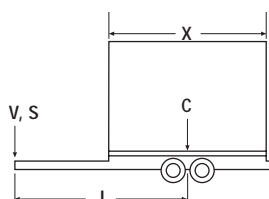
T: max. mass in tonnes of the towing vehicle

C: sum of the axle loads of the centre axle trailer carrying maximum permissible load, in tonnes

g: acceleration due to gravity 9,81 m/s²

V-value for the centre axle trailer

(only applicable in connection with the Dc-value)



The calculated V-value may be **less or equal to** the V-value of the coupling.

a: equivalent vertical acceleration in the coupling point, in m/s²

a = 1.8 for vehicles with air suspension

a = 2.4 for vehicles with other suspension

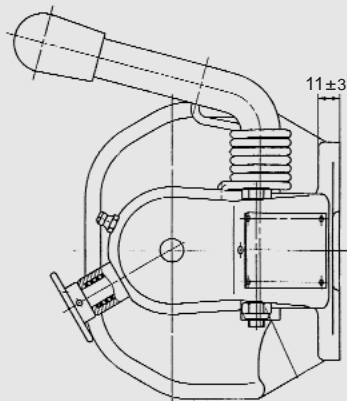
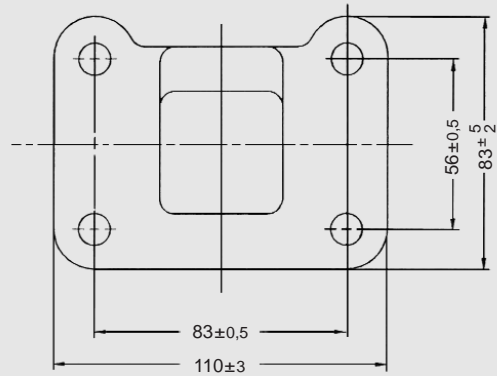
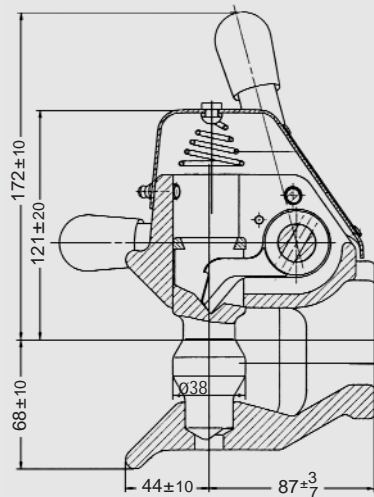
$$V \text{ (kN)} = a \cdot \frac{X^2}{l^2} \cdot C$$

l: theoretical drawbar length in metres

X: length of the loading area of the trailer in metres

X^2/l^2 **at least 1.0** (for the calculation)

C: sum of the axle loads of the centre axle trailer carrying maximum permissible load, in tonnes.



Fastening screws: M 10, quality 8.8,
Tightening torque 49 Nm

Articulation of the drawbar eye:
horizontally ±90°
vertically ±25°
rotationally ±25°

Technische Daten:

Design	Type	DIN-Standard or 94/20 EC Class	Gen. Type Approval/ EEC-Type Approval	D- value kN	Dc- value kN	Adm. Static Supporting Load kg	V- value kN	Admiss. Trailer Load for Centre Axle Trailers kg	Fastening Screws	Flange Design	Order No.
	601U115	-	F 3310	18	-	250	-	5000	M 10	83 x 56	2990687
		-	F 3310	30*	-	250	-	3000	M 10	83 x 56	
	601 U 115	S	e1 00-0036	18	18	250	16	acc. to V-value	M 10	83 x 56	2990687

*only for motor vehicles according to § 43, section 4 StVZO (motor vehicle construction and use regulation)



A certified company in accordance with DIN EN ISO 9001 and VDA 6.1

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